



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0397; Product Identifier 2017-NM-163-AD; Amendment 39-19454; AD 2018-20-20]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. This AD was prompted by a report of cracking at the fastener holes of the left-hand-side support bracket of the elevator bell crank for the control linkage in the vertical stabilizer. This AD requires an eddy current inspection on certain support brackets of the elevator bell crank for any cracking at the fastener holes, a measurement to confirm that the fastener hole diameters are within tolerance, and replacement with a new support bracket of the elevator bell crank if necessary. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0397.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0397; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Aziz Ahmed, Aerospace Engineer, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: 516-287-7329; fax: 516-794-5531; email: Aziz.Ahmed@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. The NPRM published in the Federal Register on May 8, 2018 (83 FR 20745). The NPRM was prompted by a report of cracking at the fastener holes of the left-hand-side support bracket of the elevator bell crank for the control linkage in the vertical stabilizer. The NPRM proposed to require an eddy current inspection on certain support brackets of the elevator bell crank for any cracking at the fastener holes, a measurement to confirm that the fastener hole diameters are within tolerance, and replacement with a new support bracket of the elevator bell crank if necessary.

We are issuing this AD to address any cracking in the support bracket of the elevator bell crank, which could lead to detachment of the bracket and loss of functionality of the elevator on the affected side, and result in reduced controllability of the airplane. Failure of both brackets could result in loss of pitch control of the airplane.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2017-32, dated October 10, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition on certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. The MCAI states:

During a repair on an aircraft in-service, cracking was observed at the fastener holes of the left hand side elevator bell crank support bracket for the control linkage in the vertical stabilizer. Further investigation confirmed the presence of similar cracking on other aircraft on both the left and right hand side brackets. An investigation found

that the fastener holes on some brackets did not conform to the required tolerance and fastener installation resulted in fastener hole cracks.

This [Canadian] AD requires an inspection of both elevator bell crank support brackets, and replacement if they are found cracked or do not meet the required fastener hole tolerance. Left unrepaired, cracking of an elevator bell crank support bracket could lead to detachment of the bracket and loss of functionality of the elevator on the affected side, resulting in reduced controllability of the aircraft. Failure of both brackets could result in loss of pitch control of the aircraft.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0397.

Comments

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Incorporate the Latest Service Information

Bombardier requested that we revise the NPRM to incorporate the latest service information. Bombardier stated that Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018, corrects a typographical error made to the affected airplane serial number listing. Bombardier also requested that we add Bombardier Service Bulletin 700-27-5009, Revision 01, dated July 18, 2017, to the "Credit for Previous Actions" paragraph.

We agree with the commenter's request. We have revised paragraph (g) of this AD to incorporate Bombardier Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018, for accomplishing the actions in this AD. Bombardier Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018, revises the effectivity to include an

airplane already included in the applicability of this AD, and includes minor edits that do not affect the scope of this AD. We have also revised paragraph (h) of this AD to include Bombardier Service Bulletin 700-27-5009, Revision 01, dated July 18, 2017.

Request to Clarify a Certain Serial Number

NetJets requested that we clarify the omission of a certain serial number in the service information. NetJets commented that serial number 9732 is specified in the applicability paragraph of the NPRM, but it is not specified in Bombardier Service Bulletin 700-27-5009, Revision 01, dated July 18, 2017; or Bombardier Service Bulletin 700-27-6009, Revision 01, dated July 18, 2017.

We agree to provide clarification for the commenter. Serial number 9732 is not specified in the effectivity of Bombardier Service Bulletin 700-27-5009, Revision 01, dated July 18, 2017; or Bombardier Service Bulletin 700-27-6009, Revision 01, dated July 18, 2017, but Bombardier Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018, adds serial number 9732 to the effectivity. As we stated previously, we have revised this AD to include Bombardier Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018, for accomplishing the actions in this AD. Serial number 9732 was previously included in paragraph (c) of this AD, and the applicability of an AD takes precedence over the effectivity listed in any service information. Therefore, the actions in this AD is required for the airplane having serial number 9732, regardless of what service information is specified in this AD. We have not changed the AD in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the

changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information under 1 CFR part 51

Bombardier has issued Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018; and Service Bulletin 700-27-6009, Revision 01, dated July 18, 2017. This service information describes an eddy current inspection on certain support brackets of the elevator bell crank for any cracking at the fastener holes, a measurement to confirm that the fastener hole diameters are within tolerance, and replacement with a new support bracket of the elevator bell crank. These documents are distinct since they apply to different airplane models. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 109 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection and measurement	10 work-hours X \$85 per hour = \$850	\$19	\$869	\$94,721

We estimate the following costs to do any necessary replacement that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this replacement:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	2 work-hours X \$85 per hour = \$170	\$4,798	\$4,968

According to the manufacturer, all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2018-20-20 Bombardier, Inc.: Amendment 39-19454; Docket No. FAA-2018-0397; Product Identifier 2017-NM-163-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers 9492 through 9711 inclusive, 9713 through 9717 inclusive, 9719 through 9726 inclusive, 9728, 9730, 9732, 9733, 9743, and 9751.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Reason

This AD was prompted by a report of cracking at the fastener holes of the left-hand-side support bracket of the elevator bell crank for the control linkage in the vertical stabilizer. We are issuing this AD to address any cracking in the support bracket of the elevator bell crank, which could lead to detachment of the bracket and loss of functionality of the elevator on the affected side, and result in reduced controllability of the airplane. Failure of both brackets could result in loss of pitch control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection, Measurement, and Corrective Action

Within 60 months after the effective date of this AD, or before accumulating 7,500 total flight cycles, whichever occurs first: Do an eddy current inspection of the support brackets of the elevator bell crank, part number (P/N) GD248-8750-3 and P/N GD248-8750-4, for any cracking at the fastener holes, and do a measurement to confirm that the fastener hole diameters are within tolerance, as applicable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018 (for Model BD-700-1A11 airplanes); or Bombardier Service Bulletin 700-27-6009, Revision 01, dated July 18, 2017 (for Model BD-700-1A10 airplanes). If any cracking is found or if any fastener hole is out of tolerance, before further flight, replace with a new support bracket, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018 (for

Model BD-700-1A11 airplanes); or Bombardier Service Bulletin 700-27-6009, Revision 01, dated July 18, 2017 (for Model BD-700-1A10 airplanes).

(h) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (h)(1), (h)(2), and (h)(3), as applicable.

(1) Bombardier Service Bulletin 700-27-5009, dated May 29, 2017.

(2) Bombardier Service Bulletin 700-27-5009, Revision 01, dated July 18, 2017.

(3) Bombardier Service Bulletin 700-27-6009, dated May 29, 2017.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method

approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2017-32, dated October 10, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0397.

(2) For more information about this AD, contact Aziz Ahmed, Aerospace Engineer, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: 516-287-7329; fax: 516-794-5531; email: Aziz.Ahmed@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (k)(4) of this AD.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 700-27-5009, Revision 02, dated June 15, 2018.

(ii) Bombardier Service Bulletin 700-27-6009, Revision 01, dated July 18, 2017.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on September 27, 2018.

John P. Piccola,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2018-22154 Filed: 10/15/2018 8:45 am; Publication Date: 10/16/2018]